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Date: March 20, 2003


Christine M. Spivey

PATENT
36856.587

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Kazunobu SHIMOE et al. Serial No.: 10/025,901 Filing Date: December 26, 2001 For: SURFACE ACOUSTIC WAVE APPARATUS AND MANUFACTURING METHOD THEREFOR	Art Unit: 2834 Examiner: M. O. Budd
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INFORMATION DISCLOSURE STATEMENT

ASSISTANT COMMISSIONER FOR PATENTS
Washington, D.C. 20231

Dear Sir:

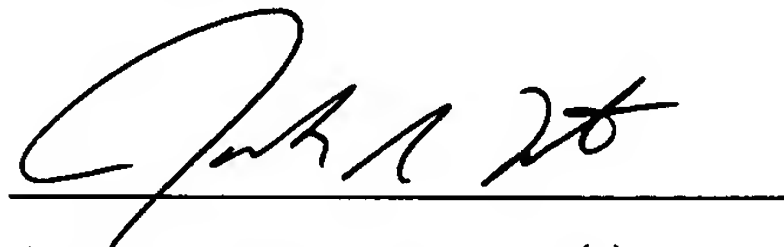
Pursuant to 37 C.F.R. § 1.56, submitted herewith are copies of two (2) references cited in the enclosed search report of a corresponding U.K. Patent Application. For the Examiner's convenience we have enclosed a completed Form PTO-1449. The statement is not a representation that all of the information cited is necessarily effective as prior art against the application.

I hereby state that each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than 3 months prior to the filing of this statement, and that this is the first citation of these prior art references by a foreign patent office in a counterpart foreign patent application. Accordingly, no fee is necessary for the filing of this statement. Should the Commissioner determine otherwise, the Commissioner is authorized to charge Deposit Account No. 50-1353 for any fee shortages, including the petition fee under 37 C.F.R. § 1.17(p).

Applicants respectfully request that the disclosed references be made of record in the subject application.

Respectfully submitted,

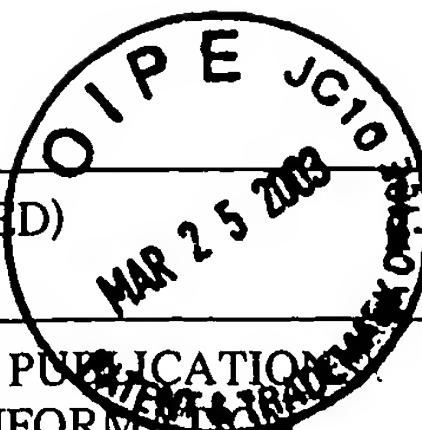
Date: March 20, 2003

A handwritten signature in black ink, appearing to read "Joseph R. Keating", is written over a horizontal line.

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FORM PTO-1449 (MODIFIED)				ATTY. DOCKET NO. 36856.587		SERIAL NO.: 10/025,901	
LIST OF PATENTS AND PUBLICATIONS FOR APPLICANTS INFORMATION DISCLOSURE STATEMENT (USE SEVERAL SHEETS IF NECESSARY)				APPLICANT(S): Kazunobu SHIMOE et al.			
Sheet	1	of	1	FILING DATE: December 26, 2001		GROUP: 2834	
U.S. PATENT DOCUMENTS							
Examiner Initial	Document Number			Date	Name	Class	Filing Date Subclass if appropriate
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
FOREIGN PATENT DOCUMENTS							
	Document Number			Date	Country	Class	Filing Date Subclass if appropriate
	AG 11-312943 A (With English Abstract)			11/1999	Japan		
	AH EP 0 878 905 A2			11/1998	Europe		
	AI						
	AJ						
	AK						
	AL						
	AM						
	AN						
	AO						
OTHER ART (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)							
	AP						
	AR						
	AS						
	AT						
EXAMINER				DATE CONSIDERED			
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							



INVESTOR IN PEOPLE

Application No: GB 0300791.1
Claims searched: 1 to 9

Examiner: Peter Easterfield
Date of search: 28 February 2003

Patents Act 1977 : Search Report under Section 17

Documents considered to be relevant:

Category	Relevant to claims	Identity of document and passage or figure of particular relevance
X	1-3 & 5	JP 110312943 A (MURATA) see 15,16 & 17, figs 1, 2, 4 & 5
A		EP 0878905 A2 (MURATA)

Categories:

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.

Field of Search:

Search of GB, EP, WO, & US patent documents classified in the following areas of the UKC^v:

H1E; H3U

Worldwide search of patent documents classified in the following areas of the IPC⁷ :

H03H

The following online and other databases have been used in the preparation of this search report :

WPI, EPODOC, JAPIO



INVESTOR IN PEOPLE

Your ref: DRW/BF/P01/291DIV
Application No: GB 0300791.1
Applicant: Murata Manufacturing Co. Ltd.

Examiner: Peter Easterfield
Tel: 01633 813695
Date of report: 3 March 2003

Latest date for reply: 3 September 2003

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Patents Act 1977

Combined Search and Examination Report under Sections 17 & 18(3)

Novelty

1. The invention as defined in claims 1, 2, 3 and 5 is not new because it has already been disclosed in the following document:

JP 110312943 A (MURATA) see 15, 16 & 17, figs 1, 2, 4 & 5

2. This document shows a surface acoustic wave device having the features listed in claim 1. In particular the "wiring electrode" 17 that interconnects the electrode 15 of the surface acoustic wave device and the electrode pad 16 overlies at least a portion of the pad 16. It follows that the electrode pad can be said to include a first electrode layer 16 disposed on the piezoelectric substrate and a second electrode layer 17 laminated on the first electrode layer and that the second electrode layer and the wiring electrode are integral with each other and include the same conductive film.

3. The characterising features of claims 2, 3 and 5 can also be found in this document.

4. Consequently some amendment is needed to satisfy section 1(1)(a).

Support

5. The various statements of invention listed from page 4 to page 9 and on page 26 should be brought into agreement with claim 1.

Conflict of claims

6. This application and its parent application GB 0130524.2 have all their drawings in common. Both applications also have omnibus claims referring to these drawings. Clearly there is some danger of the omnibus claim of this application overlapping with that of the parent application. Such overlap or conflict would be contrary to section 18(5).

Allowance of the divisional date

7. Your request that this application be treated as having been filed on 20 December 2001, which is the same date of filing as your earlier application number 0130524.2, has been allowed.

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PN - JP11312943 A 19991109
PD - 1999-11-09
PR - JP19980118932 19980428
OPD - 1998-04-28
TI - PRODUCTION OF SURFACE ACOUSTIC WAVE DEVICE
IN - IKADA KATSUHIRO;SHIMOE KAZUNOBU
PA - MURATA MANUFACTURING CO
IC - H03H3/08 ; H03H9/145

© WPI / DERWENT

TI - Surface acoustic wave device manufacturing method for mobile communication apparatus - involves removing portion of conductive layer on resist layer and resist layer after formation of secondary lead out electrode

PR - JP19980118932 19980428

PN - JP11312943 A 19991109 DW200004 H03H3/08 005pp

PA - (MURA) MURATA MFG CO LTD

IC - H03H3/08 ;H03H9/145

AB - JP11312943 NOVELTY - A Secondary lead out electrode (17) is formed by a secondary conductive layer with secondary film thickness on a substrate (11) such that portion of it is laminated on secondary external connection pad (16). Excessive portions of the conductive layer on the resist layer and resist layer are removed after formation of the secondary lead out electrode. DETAILED DESCRIPTION - A primary electrode group (30) and a secondary external connection pad (16) are formed by a primary conductive layer (20) with primary film thickness, on a substrate (11). The primary electrode group (30) includes a primary combshaped electrode (12), primary lead out electrode (14) and a primary extended connection pad (13). A resist layer (22b) is formed on the substrate after formation of the primary electrode group and secondary external connection pad. Portion of the resist layer corresponding to secondary comb-shaped electrode (15) and secondary lead out electrode (17) formation portion is removed. The secondary comb-shaped electrode is formed by a secondary conductive layer with secondary film thickness smaller than primary film thickness, on the substrate.

- USE - For mobile communication apparatus.

- ADVANTAGE - Provides reliable surface acoustic wave apparatus since die bonding does not occurs during wire bonding. Provides

surface acoustic wave apparatus with sufficient characteristic by improving electrical property. DESCRIPTION OF DRAWING(S) -

The figure shows surface acoustic wave apparatus manufacturing process. (11) Substrate; (13) Connection pad; (14,17) Lead out electrodes; (15) Comb-shaped electrode; (16) Secondary external connection pad; (20) Conductive layer; (22b) Resist layer; (30) Primary electrode group.

- (Dwg.3/8)

OPD - 1998-04-28

AN - 2000-049648 [04]

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PN - JP11312943 A 19991109

PD - 1999-11-09

AP - JP19980118932 19980428

IN - IKADA KATSUHIROSHIMOE KAZUNOBU

PA - MURATA MFG CO LTD

TI - PRODUCTION OF SURFACE ACOUSTIC WAVE DEVICE

AB - PROBLEM TO BE SOLVED: To obtain a device having high reliability by forming a first electrode group and a second external connection pad on a substrate to give a resist, removing the resist in a second electrode formation part to form a second leader electrode and lifting off the resist and a conductive layer on the resist.

- SOLUTION: A first conductive layer 20 having a prescribed thickness is formed on a piezoelectric substrate 11, and a resist 22a is formed on it, and a first interdigital electrode, a leader electrode 12, an external connection pad 13, a first leader electrode 14, and a second external connection pad 16 formed simultaneously with them are masked to remove the resist 22a. In the same manner, a second conductive layer 21 which is thinner than the first conductive layer 20 is formed on the piezoelectric substrate 11. At this time, a part of a second leader electrode 17 is laminated on a part of the second external connection pad 16, and the first interdigital electrode 12, the first leader electrode 14, a first electrode group 30 of the external connection pad 13, a second interdigital electrode 15, a second leader electrode 17, and a second electrode group 31 of the second external connection pad 16 are formed on the piezoelectric substrate 11.

I - H03H3/08 ;H03H9/145